



NS104D1C1_seqlisting_rev1.txt

SEQUENCE LISTING

<110> Palese, Peter
Garcia-Sastre, Adolfo

<120> RECOMBINANT NEGATIVE STRAND RNA VIRUS
EXPRESSION SYSTEMS AND VACCINES

<130> 26-003700US

<140> 09/396,539

<141> 1999-09-14

<150> 09/106,377

<151> 1998-06-29

<150> 08/252,508

<151> 1994-06-01

<160> 71

<170> FastSEQ for windows Version 4.0

<210> 1

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer for rescue of the mutant NA gene into virus particles

<400> 1

tacgaggaaa tggtcctggt a

21

<210> 2

<211> 19

<212> PRT

<213> Influenza virus

<400> 2

Gln Leu Val Trp Met Ala Cys Asn Ser Ala Ala Phe Glu Asp Leu Arg
1 5 10 15

Val Leu Ser

<210> 3

<211> 16

<212> PRT

<213> Influenza virus

<220>

<223> epitope within the NP protein

<400> 3

Thr Tyr Gln Arg Thr Arg Gln Leu Val Arg Leu Thr Gly Met Asp Pro
1 5 10 15

<210> 4

<211> 95

<212> DNA

<213> Artificial Sequence

<220>

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<223> Primer for construction of plasmid pV-wt

<400> 4
gaagcttaat acgactcact ataagtagaa acaagggtgt tttttcatat catttaaact 60
tcaccctgct ttgctgaat tcattcttct gcagg 95

<210> 5
<211> 95
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer for construction of plasmid pM-wt

<400> 5
gaagcttaat acgactcact ataagcaaaa gcagggtgaa gtttaaataa tatgaaaaaa 60
cacccttggt tctactgaat tcattcttct gcagg 95

<210> 6
<211> 68
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer for construction of plasmid pV-d5'

<400> 6
agcttaatac gactcactat aagatctatt aaacttcacc ctgcttttgc tgaattcatt 60
cttctgca 68

<210> 7
<211> 60
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer for construction of plasmid pV-d5'

<400> 7
gaagaatgaa ttcagcaaaa gcagggtgaa gtttaataga tcttatagtg agtcgtatta 60

<210> 8
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer for construction of plasmid pHgANS

<400> 8
ccgaattctt aatacgactc actataagta gaaacaaggg tg 42

<210> 9
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer for construction of plasmid pHgANS

<400> 9
cctctagacg ctcgagagca aaagcaggtg 30

<210> 10
<211> 15
<212> RNA

<213> Artificial Sequence
 <220>
 <223> Primer for construction of plasmid pHgaNS
 <400> 10
 caccugcuu uugcu 15
 <210> 11
 <211> 15
 <212> RNA
 <213> Artificial Sequence
 <220>
 <223> Primer for generating point mutations in promoter sequence
 <400> 11
 caccugcuu uuacu 15
 <210> 12
 <211> 15
 <212> RNA
 <213> Artificial Sequence
 <220>
 <223> Primer for generating point mutations in promoter sequence
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 caccugcuu cugcu 15
 <210> 13
 <211> 15
 <212> RNA
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 <210> 14
 <211> 16
 <212> RNA
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 <223> Primer for generating point mutations in promoter sequence
 <400> 14
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 <210> 15
 <211> 15
 <212> RNA
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 <220>
 <223> Primer for generating point mutations in promoter sequence
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 <210> 16
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<220>
<223> Primer for generating point mutations in promoter sequence

<400> 16
caccuguuu uugcu 15

<210> 17
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<220>
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<400> 17
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<210> 18
<211> 16
<212> RNA
<213> Artificial Sequence

<220>
<223> Primer for generating point mutations in promoter sequence

<400> 18
cacccuuguu uuuacu 16

<210> 19
<211> 16
<212> RNA
<213> Artificial Sequence

<220>
<223> Primer for generating point mutations in promoter sequence

<400> 19
cacccuuguu ucuacu 16

<210> 20
<211> 96
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 20
ctagacgcc tgcagcaaaa gcagggtgac aaagacataa tggagaaaaa aatcactggg 60
tataccaccg ttgatataat ccaatcgcat cgtaaa

<210> 21
<211> 96
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer for generating flanking sequences of NS RNA to fuse with the
coding sequence of the CAT gene

<400> 21
gttctttacg atgcgattgg gatatatcaa cggtgggtata cccagtgtatt ttttctcca 60
ttatgtcttt gtcaccctgc ttttgctgca gggcgt 96

<210> 22
<211> 34

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<212> DNA
<213> Artificial Sequence

<220>
<223> Primer for generating flanking sequences of NS RNA to fuse with the
coding sequence of the CAT gene

<400> 22
actgcatga gtggcagggc ggggcgtaat agat 34

<210> 23
<211> 38
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer for construction of plasmid pIVACAT1

<400> 23
ctagatctat tacgccccgc cctgccactc atcgagat 38

<210> 24
<211> 34
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 24
actgcatga gtggcagggc ggggcgtaat agat 34

<210> 25
<211> 38
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer for generating flanking sequences of NS RNA to fuse with the
coding sequence of the CAT gene

<400> 25
ctagatctat tacgccccgc cctgccactc atcgagat 38

<210> 26
<211> 97
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer for construction of plasmid pIVACAT1

<400> 26
ctagacgcc tgcagcaaaa gcagggtgac aaagacataa tggagaaaaa aaatcactgg 60
gtataccacc gttgatatat cccaatcgca tcgtaaa 97

<210> 27
<211> 96
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer for construction of plasmid pIVACAT1

<400> 27
gttctttacg atgcgattgg gatatatcaa cggtgggata cccagtgatt tttttctcca 60
ttatgtcttt gtcaccctgc ttttgctgca gggcgt 96

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<210> 28
 <211> 30
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Primer for construction of pT3NAV

 <400> 28
 cggaattctc ttcgagcgaa agcaggagtt 30

 <210> 29
 <211> 51
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Primer for construction of pT3NAV mut 2

 <400> 29
 catgggtgag tttcgaccaa aatctagatt ataaaatagg atacatatgc a 51

 <210> 30
 <211> 51
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Primer

 <400> 30
 catgggtgag tttcgaccaa aatctagatt ataaaatagg atacatatgc a 51

 <210> 31
 <211> 43
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Primer for construction of pT3NAV mut 2

 <400> 31
 aatgtatcct attttataat ctagattttg gtcgaaactc acc 43

 <210> 32
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Primer for construction of pT3NA/BIP

 <400> 32
 ggccactagt aggtcgacgc cggc 24

 <210> 33
 <211> 22
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Primer for construction of pT3NA/BIP

 <400> 33
 gcgctggcca tcttgccagc ca 22

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<210> 34
<211> 17
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer for construction of pT3NA/BIP-CAT

<400> 34
agaaaaaat cactggg 17

<210> 35
<211> 17
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer for construction of pT3NA/BIP-CAT

<400> 35
ttacgccccg ccctgcc 17

<210> 36
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer for construction of pT3BIP-NA

<400> 36
gcgcatcgat aggtcgacgc cgg 23

<210> 37
<211> 55
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer for construction of pT3BIP-NA

<400> 37
ggccatcgat ccaatggta ttattttctg gtttgattc atcttgccag ttggg 55

<210> 38
<211> 91
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer for construction of pT3GP2/BIP-NA (L-primer)

<400> 38
atgactggat ccgctagcat ggccatcatt tatctcattc tcctgttcac agcagtgaga 60
ggggaccaga tagaagaatc gcaaaaccag c 91

<210> 39
<211> 39
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer for construction of pT3GP2/BIP-NA (M-primer)

<400> 39
atgacagaat tcgtcgactt atctattcac tacagaaag 39

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NS104D1C1_seqlisting_rev1.txt

<210> 40
 <211> 53
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Primer for construction of pT3GP2/BIP-NA

 <400> 40
 gcgcgaagac gcagcaaaag caggagtta agctagcatg gccatcattt atc 53

 <210> 41
 <211> 38
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Primer for construction of pT3HGP2/BIP-NA

 <400> 41
 cgatggatcc gctagcttgg aatcgatggg ggtgtatc 38

 <210> 42
 <211> 37
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Primer for construction of pT3HGP2/BIP-NA

 <400> 42
 atcgatgaat tcgtcgactc agatgcatat tctgcac 37

 <210> 43
 <211> 51
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Primer for construction of pT3HGP2/BIP-NA

 <400> 43
 atgactgtcg acccatggaa gtcaatcgat gttatgttaa accaattcca c 51

 <210> 44
 <211> 28
 <212> DNA
 <213> Influenza A virus

 <400> 44
 gcgcgaattc tcttcgagca aaagcagg 28

 <210> 45
 <211> 18
 <212> DNA
 <213> Influenza virus

 <220>
 <223> Position 243-226 of the NA gene

 <400> 45
 agagatgaat tgccggtt 18

 <210> 46
 <211> 6
 <212> PRT
 <213> Human Immunodeficiency Virus-1 (HIV-1)

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<400> 46
Glu Leu Asp Lys Trp Ala
1 5

<210> 47
<211> 12
<212> RNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 47
ccugcuuuyg cu 12

<210> 48
<211> 22
<212> RNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 48
aguagaaaca aggguguuuu uu 22

<210> 49
<211> 52
<212> RNA
<213> Influenza A virus

<400> 49
aguagaaaca aggguguuuu uucauaucau uuaacuucac ccugcuuuug cu 52

<210> 50
<211> 53
<212> RNA
<213> Influenza A virus

<400> 50
agcaaaagca gggugaaguu uaaugauau gaaaaaacac ccuuguuucu acu 53

<210> 51
<211> 30
<212> RNA
<213> Influenza A virus

<400> 51
agaucuauua aacuucaccc ugcuuuugcu 30

<210> 52
<211> 43
<212> RNA
<213> Artificial Sequence

<220>
<223> Primer for generate mutagenesis sequence within viral gene segments

<400> 52
aguagaaaca aggguguuuu uucagaucua uuacgccccg ccc 43

<210> 53
<211> 15
<212> RNA
<213> Artificial Sequence

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<220>
 <223> Primer for construction of WSN NA gene in pT3NAV plasmid

<400> 53
 aguagaaaca aggag 15

<210> 54
 <211> 14
 <212> RNA
 <213> Artificial Sequence

<220>
 <223> Primer for construction of WSN NA gene in pT3NAV plasmid

<400> 54
 aguagaaaca agag 14

<210> 55
 <211> 12
 <212> RNA
 <213> Artificial Sequence

<220>
 <223> Primer for construction of WSN NA gene in pT3NAV plasmid

<400> 55
 ccugcuuucg cu 12

<210> 56
 <211> 53
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Primer

<400> 56
 ccatgggtga gtttcgacca aaatctagat tataaaatag gatacatatg cag 53

<210> 57
 <211> 15
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Primer

<400> 57
 cctgcagaag aatga 15

<210> 58
 <211> 55
 <212> RNA
 <213> Artificial Sequence

<220>
 <223> Primer for generate mutagenesis sequence within viral gene segments

<400> 58
 gugguauacc cagugauuuu uuucuccauu augucuuugu cacccugcuu uugcu 55

<210> 59
 <211> 53
 <212> RNA
 <213> Artificial Sequence

NS104D1C1_seqlisting_rev1.txt

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<220>
<223> Primer for construction of WSN NA gene in pT3NAV plasmid

<400> 59
cugcagaugu auccuauuuu auaaucuagg uuuuggucga aggacaccca ugg      53

<210> 60
<211> 12
<212> RNA
<213> Artificial Sequence

<220>
<223> Primer for construction of WSN NA gene in pT3NAV plasmid

<400> 60
ccugcuuucg cu      12

<210> 61
<211> 53
<212> RNA
<213> Artificial Sequence

<220>
<223> Primer for construction of WSN NA gene in pT3NAV plasmid

<400> 61
cugcauangu auccuauuuu auaaucuaga uuuuggucga aacucaccca ugg      53

<210> 62
<211> 96
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 62
ctagacgccc tgcagcaaaa gcagggtgac aaagacataa tggagaaaaa aatcactggg 60
tataccaccg ttgatatatc ccaatcgcat cgtaaa      96

<210> 63
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer for construction of pT3NAV

<400> 63
ccaagcttat taaccctcac taaaagtaga aacaaggagt tt      42

<210> 64
<220> 40
<212> DNA
<213> Artificial sequence

<220>
<223> oligonucleotide

<400> 64
tgggtatacc accgttgata tatcccaatc gcatcgtaaa      40

<210> 65
<211> 42
<212> DNA
<213> Artificial sequence

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<220>
 <223> Oligonucleotide

<400> 65
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<210> 66
 <211> 53
 <212> RNA
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<220>
 <223> Transcribed V-wt template

<400> 66
 aguagaaaca aggguguuuu uucauaucau uaaaacuuca cccugcuuuu gcu 53

<210> 67
 <211> 53
 <212> RNA
 <213> Artificial sequence

<220>
 <213> Transcribed M-wt template

<400> 67
 agcaaaagca gggugaagu uaaugauau gaaaaaacac ccuuguuuu acu 53

<210> 68
 <211> 8
 <212> RNA
 <213> Artificial sequence

<220>
 <223> Linker sequence

<400> 68
 cagaucua 8

<210> 69
 <211> 13
 <212> RNA
 <213> Artificial sequence

<220>
 <223> Transcribed CAT gene terminal sequence in pIVCAT1

<400> 69
 uuacgccccg ccc 13

<210> 70
 <211> 29
 <212> RNA
 <213> Artificial sequence

<220>
 <223> Transcribed CAT gene terminal sequence in pIVCAT1

<400> 70
 gugguauacc cagugauuuu uuucuccau 29

<210> 71
 <211> 26
 <212> RNA
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<220>

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<223> 3' nontranslated end of influenza A/PR/8/34 virus segment 8

<400> 71

uauuguuuug ucacccugcu uuugcu

26